

# **INITIAL STATEMENT OF REASONS**

## **PROPOSED AMENDMENTS TO APPLIANCE EFFICIENCY REGULATIONS**

### **CALIFORNIA CODE OF REGULATIONS, TITLE 20, SECTIONS 1601 – 1608**

### **CALIFORNIA ENERGY COMMISSION Docket Number 05-AAER-1 June 2005**

#### **Introduction**

In this rulemaking proceeding of the California Energy Commission (“Energy Commission”) is proposing to amend its Appliance Efficiency Regulations. The proposed amendments would change the effective dates of some recently-adopted efficiency standards, impose new data-reporting requirements for certain appliances for which there are currently efficiency standards but no reporting requirements, and make minor corrections and clarifications.

The Energy Commission first adopted appliance regulations in 1976 and has periodically revised them since then. The current regulations include provisions on testing of appliances to determine their efficiency, reporting of data by manufacturers to the Energy Commission, standards establishing mandatory efficiency levels, and compliance and enforcement procedures, as well as general provisions on the scope of the regulations and definitions.

In 2002 the Energy Commission adopted extensive revisions to its appliance regulations, including re-organizing some sections and making substantial additions to the sections on compliance and enforcement. In the current rulemaking addressed by this Initial Statement of Reasons (“ISOR”), the basic structure established by the 2002 amendments remains in place.

This Initial Statement of Reasons (“ISOR”) describes the technical and policy rationales for the proposed amendments, including the projected energy and economic impacts resulting from the proposed amendments, where applicable, and other information as required by law. Information on public hearings, submittal of comments on the proposed amendments, document availability, and other matters concerning the proposal are contained in the companion Notice of Proposed Action, which is available from Linda Franklin at LFrankli@energy.state.ca.us. Also available from Ms. Franklin is the Form 399, Economic and Fiscal Impact Statement.

## **Factors Applicable to All Sections**

Several of the legal requirements for the Initial Statement of Reasons call for the same general information for each section of the proposed amendments. To save space and the reader's time, we provide that general information here. Where additional information is required, it is presented under the appropriate individual section.

### **PURPOSE, RATIONALE, AND NECESSITY OF THE PROPOSED AMENDMENTS IN GENERAL**

The California economy, and the well-being of all of California's citizens, depends on an adequate, reasonably-priced, and environmentally-sound supply of energy. Recent growth in electricity demand has strained the reliability of California's electricity system and has in some circumstances contributed to a substantial rise in electricity prices. Similarly, natural gas supplies are becoming tighter.

Improvements in energy efficiency are the cheapest and most environmentally-friendly methods to help bring demand and supply into balance. Thus existing law (Public Resources Code Section 25402(c)) requires the Energy Commission to adopt standards that prescribe minimum efficiency levels for appliances. The proposed amendments, while not involving major change to any efficiency standards, will nevertheless assist the Commission's appliance efficiency program by providing additional data and making necessary corrections and clarifications to the regulations.

### **REASONS FOR MANDATING SPECIFIC ACTIONS, PROCEDURES, TECHNOLOGIES, OR EQUIPMENT; CONSIDERATION OF PERFORMANCE STANDARDS**

The proposed amendments would not mandate any particular action, procedure, technology, or equipment.

### **STUDIES, REPORTS, AND DOCUMENTS RELIED UPON**

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Commercial Packaged Refrigerators, Freezers, Refrigerator-Freezers, and Ice Makers," April 28, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Open Case Refrigerators and Freezers," May 11, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Walk-in Coolers (Refrigerators) and Freezers," May 10, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Water Dispensers," April 28, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Very Large Air-Cooled Unitary Air Conditioners," May 3, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Evaporative Coolers," May 11, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Ceiling Fans," May 9, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Whole House Fans," April 28, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Residential Exhaust Fans," April 27, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Residential Pool Pumps, Motors, and Controls," May 12, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Portable Electric Spas," May 12, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Pre-Rinse Spray Valves," May 4, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for General Service Incandescent Lamps," May 5, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for BR, ER, and R20 Incandescent Lamps," April 28, 2004.

Fernstrom, Gary B., PG&E. "Recommendations for Administrative Clarifications for Design Standards for Torchiere (Sec. 1605.3(n)), March 10, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Metal Halide Lamps and Fixtures," April 28, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Under Cabinet Fluorescent Fixtures Attached to Office Furniture," May 5, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Consumer Electronics Standby Losses," May 3, 2004.

Fernstrom, Gary B., PG&E. "Analysis of Standards Options for Single-Voltage External AC to DC Power Supplies," May 3, 2004.

Holland, Jim and R. Michael Martin, California Energy Commission. "Amendments to the Appliance Efficiency Regulations: Draft Staff Report," Publication Number CEC-400-033-SD, June 2005.

REASONABLE ALTERNATIVES, IF ANY, TO THE PROPOSED AMENDMENTS THAT WERE CONSIDERED, INCLUDING ALTERNATIVES TO LESSEN IMPACTS ON SMALL BUSINESS, AND REASONS FOR REJECTING THEM

Thus far for this rulemaking, the Energy Commission has found no alternatives to the proposed regulations that would be more effective, or as effective and less burdensome. In particular, the Energy Commission has found no alternatives for the specific purpose of avoiding impacts on small businesses, because there will be no significant adverse impacts (see next paragraph). For the appliance efficiency standards as a whole, the alternative to setting the efficiency standards would be to allow market forces to drive the efficiency of the appliances upward over time. This process would require a far longer period to reach the efficiency levels in the proposed standards (if indeed they ever would be reached), thereby depriving California's citizens and businesses of the economic and environmental benefits of increased energy efficiency.

EVIDENCE RELIED UPON TO SUPPORT THE INITIAL DETERMINATION,  
IN THE NOTICE OF PROPOSED ACTION,  
THAT THE PROPOSED REGULATIONS WILL NOT HAVE  
A SIGNIFICANT ADVERSE ECONOMIC ADVERSE IMPACT ON BUSINESS

Only two parts of the proposed amendments could affect business costs. First, the effective date of the current efficiency standards for walk-in refrigerators and freezers would be delayed for two years. That would save money in the short run for businesses that purchase such equipment; when the standards go into effect, there would be savings on utility bills. Second, the proposed amendments would add data reporting for certain appliance types, which is estimated to cost each manufacturer thereof \$360 per year. That is a trivial amount; moreover, there are few affected appliance manufacturers in California.

EFFORTS TO AVOID UNNECESSARY DUPLICATION OR CONFLICT WITH  
THE CODE OF FEDERAL REGULATIONS

The proposed regulations neither duplicate nor conflict with any federal regulation.

There are extensive federal regulations on appliance efficiency. (See 42 U.S.C. section 6291 et seq.; 10 CFR Parts 430, 431.) However, the proposed amendments affect only those appliances that are not covered by the federal regulations, except for updating references to the federal test methods (where obviously there is no conflict), and for minor clarifications and corrections that do not duplicate or conflict with any federal regulation.

**Specific Purpose, Rationale, and Necessity of Each Proposed Adoption, Amendment, and Repeal**

In addition to the changes discussed below, the proposed amendments would make minor clarifications and corrections throughout the regulations.

## Section 1601. Scope.

There are no proposed amendments for this section.

## Section 1602. Definitions.

There are no proposed amendments for this section, except that references to federal test methods are updated to the 2005 version.

### Section 1602.1 Rules of Construction

There are no proposed amendments for this section.

## Section 1603. Testing: All Appliances

Section 1603 includes general requirements for the testing of appliances when tested as required with the test methods listed in Section 1604, "Test Methods for Specific Appliances." Staff is proposing to add wording to Section 1603 that will clarify the testing requirements of federally-covered items for which a DOE test method waiver has been issued.

## Section 1604. Test Methods for Specific Appliances.

Section 1604 lists the methods with which the efficiency of each appliance is determined. It is necessary to specify a particular test method for each appliance so that the efficiency of all units is assessed under the same conditions; doing so results in fair treatment for all manufacturers and consistent, reliable information for consumers. The proposed amendments revise some current test methods, as follows:

*Update to Newer Edition of Current Federal Test Method* (these amendments are required by federal law):

Non-commercial Refrigerators, Freezers, and Refrigerator Freezers;  
Wine Chillers (Section 1604(a)(1))

Room Air Conditioners and Room Air-Conditioning Heat Pumps  
(Section 1604(b))

Central Furnaces <225,000 Btu/hr; Boilers < 300,000 Btu/hr; and Wall  
Furnaces, Floor Furnaces, and Room Heaters (Section 1604(e)(1))

Small Water Heaters that are federally-regulated (Section 1604(f)(1))

Fluorescent Lamp Ballasts (Section 1604(j))

General Service Fluorescent Lamps and Incandescent Reflector Lamps  
(Section 1604(k))

Under-cabinet luminaires (Section 1604(n))

Dishwashers (Section 1604(o))

Clothes Washers (Section 1604(p))

Clothes Dryers (Section 1604(q))

Consumer Product Cooking Products (Section 1604(r))

Electric Motors (Section 1604(s))

*Change to Current State Test Method:*

Evaporative Coolers (Section 1604(d)): minor typographical corrections to test method.

Commercial Pre-Rinse Spray Valves (Section 1604(h)): clarification of testing conditions.

Section 1605: Energy Performance, Energy Design, Water Performance, and Water Design Standards: In General.

There are no proposed amendments for this section.

Section 1605.1. Federal Standards for Federally-Regulated Appliances

Correct paragraph lettering throughout Section 1605.1

In the “documents incorporated by reference” subsection at the end of Section 1605.1:, correct a typographical error in the reference to the test method, ASME/ANSI A112.18.1M-1996.

Section 1605.2. California Standards for Federally-Regulated Appliances

There are no proposed amendments for this section.

Section 1605.3. California Standards for Non-Federally-Regulated Appliances

Section 1605.3(a)(4), standards for walk-in refrigerators and freezers:

add maximum size limitations for the doors for which automatic door closers must be used;

delay the effective date of the requirement for the use of electronically-commutated motors, from January 1, 2006, to January 1, 2008; and

change from the current narrative format to a table format; and change the word “gas” to “glass” in Section 1605.3(a)(4)(ii)(I).

Section 1605.3(a)(7), Table A-6: corrects an omission of pre-existing minimum efficiency standards for ice cream freezers that were intended to be continued without change, but were inadvertently omitted from Table A-6 in the Commission's most recent appliance rulemaking.

Section 1605.3(u)(1), in the descriptive heading for external power supply standards; clarify the input voltages at which the efficiency requirements are applicable.

#### Section 1606: Filing by Manufacturers; Listing of Appliances in Database.

In order to determine whether appliances comply with the applicable standards, and in order to provide valuable information to building officials, utilities and others operating appliance efficiency incentive programs, researchers, and the general public, it is necessary for manufacturers to report certain appliance data to the Energy Commission. Thus the Energy Commission's appliance regulations have required data reporting since their inception in 1976. The proposed amendments would add reporting requirements for some appliances for which efficiency standards were adopted during previous rulemakings but reporting requirements were not adopted. The proposed amendments also would make a number of minor corrections and clarifications to this section. The proposed amendments are:

##### *New Reporting Requirements*

Section 1606, Table V, Group N, torchieres.

Section 1606, Table V, Group N, under-cabinet fluorescent fixtures.

Section 1606, Table V, Group U, consumer audio and video equipment.

##### *Clarifications and Corrections*

Section 1606(a), "Filing of Statements," remove the following appliances from the list of exceptions – torchieres, consumer audio and video equipment, and under-cabinet luminaires.

Section 1606(a)(4), Declaration, amend the declaration requirements to allow each declaration to be tailored to the appliance type being certified.

Section 1606(e)(1), Filing by Third Parties, clarify requirements.

Section 1606, correct paragraph lettering, which contains duplicate paragraphs "c".

Section 1606, Table V, Group A, add the choice of "point-of-use" for type of water dispensers listed, and remove "base rate capacity" from data reporting for water dispensers.

Section 1606, Table V, Group D, change “air flow efficiency (watts/CFM)” to “air flow efficiency (CFM/watt),” and add the reporting provisions for “Residential exhaust fan type” and “Whole-house fan type.”

Section 1606, Table V, Group D, Ceiling Fans, change the data reporting provision “lighting type” to “light source type.”

Section 1606, Table V, Group F, remove the data reporting provision “first hour rating” and add the data reporting provision “maximum gallons per minute” for mini-tank electric water heaters and other small electric water heaters.

Section 1606, Table V, Group G, add the following data reporting provision for portable electric spas, “R-value of portable electric spa cover that is provided with the spa”, “Spa enclosure is fully insulated: Yes/no,” and “If spa is fully insulated, R-value of insulation.”

Section 1606, Table V, Group G; (1) add the data reporting provision “motor has capability of operating at two or more speeds with the low speed having a rotation rate that is no more than one-half of the motor’s maximum rotation rate (true/false)”; (2) change “motor speeds” to “motor design”; and (3) change “motor design” to “motor construction.”

Section 1606, Table V, Group N, add the data reporting provision of “lamp position” for metal halide luminaire data collection, with responses to lamp position consisting of “vertical, horizontal, universal.”

#### Section 1607: Marking of Appliances.

Section 1607(d)(9), labeling requirements for external power supplies: (1) delay the effective date from January 1, 2006 to July 1, 2006; (2) . add an exception to the marking requirement for color contrast, for when the marking is molded into the power supply housing.

#### Section 1608: Compliance, Enforcement, and General Administrative Matters.

Section 1608(a), General Requirements for the Sale or Installation of All Appliances: remove the following appliances from the list of exceptions: torchieres, consumer audio and video equipment, and under-cabinet luminaires.